Background for
The Commission to Study Maine's Hospitals

Presented by
The Governor's Office of Health Policy and Finance
October 2004

Executive Summary of Findings

Snapshot

- Maine's community hospital network is large and complex, consisting of 39 acute care hospitals, most of which are the sole hospital in the town in which they are located and which work in a variety of ways to meet the needs of their communities.
- The network includes 6 teaching hospitals, 3 tertiary care hospitals, 8 critical access hospitals, 9 sole community hospitals, and 2 psychiatric hospitals.
- A number of studies have shown that Maine has high quality hospitals. For instance, a 2003 report issued by the Centers for Medicare and Medicaid Services ranked Maine hospitals third in the nation – just behind New Hampshire and Vermont – in 2000-2001 on 22 quality indicators for care provided to Medicare patients

Hospital Financial Health and Maine's Economy

- In 2003 hospitals provided just under one-in-twenty of the jobs in Maine (4.5%). Growth in private hospital employment in Maine from 1996-2003 (22%) exceeded the national rate of growth (13%).
- While it is true that hospitals and health care in general play a crucial role in our state's economy, high levels of health care spending have proven to be a cause of sluggish job growth in others sectors.
- In general, Maine's hospitals have better financial health than benchmark hospitals: the median operating margin for Maine's hospitals exceeded the New England median in each year of the seven-year period 1996-2002, and exceeded the national median in all but one year of these years. The New England and national medians in 2002 were -0.7% and 1.5%, respectively.
- There is wide range of variation in the profitability of Maine hospitals: in 2003, 13 had operating margins greater than 3%, 13 had margins between 0 and 3%, and 10 hospitals had negative margins. Some of the hospitals with negative operating margins are part of hospital systems and therefore have their operating losses subsidized by other more profitable hospitals within the system.
- Over one-third of hospital profits are transferred to subsidiaries, system affiliates, and physician practices. Some of the related entities are for-profit organizations, whose financial statements are not publicly available. These complex organizational structures and financial transactions can obscure a complete understanding of hospital entity financial condition.

Costs and Spending

- Maine had the 6th highest median cost per inpatient discharge in the US in 2002 of the 39 states for which data are available, ***after*** differences between states in cost due to labor costs and patient casemix had been taken into consideration.
- Maine's 2002 median cost per outpatient Medicare visit was 12% higher than the national median, 28%, 16%, and 10% higher than Massachusetts, New Hampshire, and Vermont, respectively, ***after*** differences between states in cost due to labor costs and patient casemix had been taken into consideration.
- While total spending can be lowered by lessening the cost per patient, total spending can also be lowered by lessening unnecessary utilization. A wide body of research shows that supply of health care services often drives demand and that excess capacity results in unnecessary utilization and higher spending.
- Supply of hospital beds is the factor that most strongly predicts hospitalization rates for medical conditions. Maine has the most beds per 1,000 citizens in New England.
- Maine's Certificate of Need Program can be used to ensure that supply matches the population's health needs and does not result in unnecessary utilization and higher spending.

Findings

A Snapshot of Maine's Hospitals

- Maine's community hospital network is large and complex, consisting of 39 acute care hospitals, most of which are the sole hospital in the town in which they are located and which work in a variety of ways to meet the needs of their communities.[1]
- The network includes 6 teaching hospitals, 3 tertiary care hospitals, 8 critical access hospitals, 9 sole community hospitals, and 2 psychiatric hospitals.[2]
- The 39 community hospitals vary in capabilities from the Maine Medical Center, which ranks among our nation's leaders in medical sophistication, technology and know-how to small rural and critical access hospitals which provide essential primary care and emergency services for those living in outlying areas, with a large number of capable hospitals lying between the two extremes.
- Roughly three-quarters of the hospitals in the state belong to one of the state's major hospital systems. Most of the hospitals that are not part of those systems have at least some involvement with those systems. The Commission heard anecdotal but convincing evidence that participation in systems has resulted in savings to members, but heard no evidence that systems in general have brought down total growth in hospital spending in the state.
- Roughly 3600 acute care beds are licensed in the state,[3] approximately 85% of which are staffed.[4]

Hospitals and Maine's Economy

- Hospitals play a significant role in the state's economy, providing just under one-in-twenty of the jobs in Maine (roughly 26,300 = 4.5%) – in 2003,[5] with substantial growth (22%) since 1996. The MHA projects continued job growth over the next five years.[6] National growth in private hospital jobs from 1996-2003 was 13%.[7]
- Wages and benefits account for 52% of hospital budgets;[8] Maine's hospitals employ 1,300 physicians, roughly 30% of those in the state.[9]
- While it is true that hospitals and health care in general play a crucial role in our state's economy, high levels of health care spending have proven to be a cause of sluggish job growth in others sectors. A recent New York Times article noted that:

> "Health care is a major reason why employment growth has been so sluggish," said Sung Won Sohn, the chief economist at Wells Fargo…Government data, industry surveys and interviews with employers big and small indicate that many businesses remain reluctant

---

[1] This report does not include the VA hospital at Togus or the two state-run mental health facilities.
[2] Maine Hospital Association presentation to CSMH, January 5, 2004.
[3] Maine Division of Licensing and Certification web-site.
[4] MHA, using data from the American Hospital Association 2002 survey.
[5] Dana Evans, State Labor Economist, Department of Labor, presentation to CSMH, May 3, 2004. There were roughly 48,600 non-hospital health care jobs – primarily in ambulatory surgical and nursing care facilities – in 2003, accounting for 8.2% of all jobs in the state.
[6] MHA presentation to CSMH.
[7] Evans presentation to CSMH.
[8] MHA presentation to CSMH.
[9] MHA presentation to CSMH.

> to hire full-time employees because health insurance, which now costs the nation's employers an average of about $3,000 a year for each worker, has become one of the fastest-growing costs for companies… In this economic environment, rising health care costs are particularly burdensome because they increase labor costs even as wages are barely moving.[10]

- Health care is not an export business – it is primarily provided and paid here by Maine businesses and taxpayers.[11] As health care costs grow, the cost of doing business in Maine grows, inhibiting the growth of existing business and the entry of new business, and diverting resources otherwise available for economic investment – all factors necessary to achieve the balance and economic diversity necessary for a thriving economy.
- Hospital spending constitutes the largest portion of health care spending both nationally and in Maine, accounting for slightly more than one-third of all health spending in the state. Curtailing growth in hospital spending can therefore have a meaningful impact on curtailing growth in total spending.

The Majority of Maine's Hospitals are Financially Healthy

- Maine's hospitals are non-profit organizations governed by Trustees. Non-profits are granted tax-exempt status -- and are thus funded in part by taxpayers -- to assist them in their missions to serve the public good. Non-profits must nevertheless maintain operating margins (i.e., profits) that are sufficient to maintain adequate cash to meet operational obligations, and to allow for reasonable capital expenditures and debt repayment
- The Dirigo Act asked hospitals to voluntarily hold hospital consolidated operating margins to no more than 3% for the hospital's fiscal year beginning July 1, 2003 and ending June 30, 2004. This applies to *hospital systems*, but not to *individual hospital entities.*
- The process of assessing the financial health of Maine's hospitals over time is complicated by several factors:
  - Many of Maine's hospitals belong to larger hospital systems and have a wide range of related entities. For example, MaineGeneral Health System has ten entities, including the hospital. The MaineHealth system appears to have over forty different entities.
  - Over one-third of hospital profits are transferred to subsidiaries, system affiliates, and physician practices. Some of the related entities are for-profit organizations, whose financial statements are not publicly available. These complex organizational structures and financial transactions can obscure a complete understanding of a hospital entity's financial condition.
  - The method of presenting financial data can vary from one hospital to the next and, sometimes, from one year to the next for the same hospital.

[10] Porter, Eduardo. "Rising Cost of Health Benefits Cited as Factor in Slump of Jobs." New York Times, August 19, 2004.

[11] Medicare and Medicaid bring in Federal tax dollars. In FFY 2000, $1.32 in Federal money was spent in Maine for every $1 in Federal taxes paid by Maine residents (Kaiser Family Foundation, State Health Facts Online, www.statehealthfacts.kff.org).

- Because of those complications, GOHPF hired Nancy Kane, D.B.A., Professor of Health Policy and Management, Harvard School of Public Health, an independent nationally recognized expert in hospital financial analysis. Among other work she performed for the Commission, Dr. Kane conducted a 10-year analysis of Maine's hospitals financial health. She found that Maine hospitals have had a profitable decade, and that most are in good financial health. Among her specific findings:
  - Median hospital entity operating margins rose through the mid-1990's following the demise of the Maine Health Care Finance Commission, declined from 1999 to 2002,[12] and rose slightly in 2003.[13]
  - In general, Maine's hospitals have better financial health than benchmark hospitals. The median operating margin for Maine's hospitals exceeded the New England median in each year of the seven-year period 1996-2002, and exceeded the national median in all but one year of these years.[14] The New England and national medians in 2002 were -0.7% and 1.5%, respectively.[15]
  - There is wide range of variation in the profitability of Maine hospital entities: in 2003, 13 had operating margins greater than 3%, 13 had margins between 0 and 3%, and 10 hospitals had negative margins.[16] Some of the hospitals with negative operating margins are part of hospital systems and therefore have their operating losses subsidized by other more profitable hospitals within the system.
  - The median days cash on hand in 2003 was 70 days ("days cash on hand" refers to the number of days a hospital could continue to operate if the hospital ceased collecting revenues). Non-profit hospitals generally maintain roughly 20 days cash on hand to operate effectively. [17]
  - There was a significant decrease from 2002 to 2003 in the percentage hospital profits transferred to affiliates. The reason for this decrease – e.g., whether physician practices become more profitable or whether some of the more unprofitable practices been closed – will be analyzed in further research. [18]

Hospital Subsidization of Physician Practices May Not Be Most Efficient Way of Delivering Physician Services

- Slightly more than half of all funds transferred by hospitals to affiliates goes to physician practices. Hospitals argue that these subsidies to physician practices – some as high as 50% of practice expenses – are necessary to keep physician practices in business.[19]
- Hospital subsidization of physician practices may not be the most efficient and effective way of delivering physician services, and alternative models could be sought, such as more sharing of specialists across hospitals.

[12] Nancy Kane, presentation to CSMH, June 21, 2004
[13] Nancy Kane, presentation to CSMH, September 27, 2004.
[14] Kane, presentation to CSMH, June 21, 2004.
[15] New England and US numbers for 2003 will be available to the public in early 2005.
[16] Nancy Kane, presentation to CSMH, September 27, 2004.
[17] Kane, presentation to CSMH, September 27, 2004.
[18] Kane, presentation to CSMH, September 27, 2004.
[19] Kane, presentation to CSMH, June 21, 2004.

Costs are Higher in Maine than in Other States

- Inpatient: Hospital data analyzed annually by Ingenix, a health care information, research, and consulting company that maintains one of the largest hospital databases in the country, show that of the 39 states for which data are available, Maine had the 6th highest median cost per inpatient discharge in the US in 2002 (the most recent year for which data are available), at $6,917 per discharge. This is 19% higher than the national median of $5,819 and 45% higher than the Northeast region median of $4,759,[20] ***after*** taking into consideration differences in states' costs due to differences in (1) labor costs and (2) patient casemix (i.e., differences in what patients are being treated for, due to factors such as age, co-occurring illnesses, or complications).
- Outpatient: Cost reports submitted by hospitals to the federal Medicare program show that in 2001, Maine hospitals' median cost of $66 per adjusted outpatient Medicare visit was roughly 10% higher than our New England neighbors and equal to the national median.[21] In 2002, Maine's average outpatient Medicare cost of $74 was 12% higher than the national median, 28%, 16%, and 10% higher than Massachusetts, New Hampshire, and Vermont, respectively. This is also ***after*** controlling for the effects of differences between states in (1) labor costs and (2) patient casemix.
- The UnumProvident corporation has indicated that its overall and per-employee healthcare costs are significantly higher in Maine than in other states -- in spite of the fact that its Maine employees are healthier and use less health services than its employees in other states - and has pointed out that hospital charges -- for example for MRIs and outpatient care -- are 'much higher' in Maine than in other states.[22]

Access Measures in Maine Exceed Those of Our Neighbors

- Comparing inpatient and outpatient utilization in Maine to utilization in other states suggests that availability of hospital services is more than adequate to meet most Mainers' needs. For instance, in 2002 Maine's rate of:[23]
  - 2.9 beds per 1000 (population) exceeded the New England rate (2.4) by 21%, New Hampshire (2.3) by 26%, and Vermont (2.6) by 12%;
  - 113 inpatient admissions per 1000 was on par with the New England rate (112), but exceeded New Hampshire (93) by 22% and Vermont (85) by 33%;
  - 46 inpatient surgeries per 1000 exceeded the New England rate (33) by 43%, New Hampshire (26) by 76%, and Vermont (24) by 91%;
  - 2,335 non-emergency outpatient visits per 1000 exceeded the New England rate (2,112) by 11%, New Hampshire (1,939) by 20%, and Vermont (2,011) by 16%;

[20] *The 2004 Almanac of Hospital Financial & Operating Indicators*. Ingenix, Inc. 2003.
[21] US medians from, Cleverley and Associates 2001 and 2002 "Hospital Dashboard Reports," available through www.cleverleyassociates.com. State specific data from a report compiled by Cleverley and Associates for the University of Maine Muskie School of Public Service, 2004. Maine's Critical Access Hospitals (hospitals w 15 or fewer beds in 2001 and 2002) are not included.
[22] UnumProvident and the Maine Healthcare Purchasing Collaborative, "Testimony on Maine State Health Plan," presented by David Brenerman, Assistant Vice President UnumProvident Corporation, June 4, 2004, Augusta, Maine.
[23] Hospital Statistics 2004. Health Forum LLC, Affiliate of American Hospital Association. 2004

- 548 Emergency Room visits per 1000 exceeded the New England rate (441) by 24%, New Hampshire (432) by 27%, and Vermont (374) by 46%.

- In 2002 Maine's hospitals reported an estimated $123 million in bad debt and $68 million in charity care costs caring for the uninsured.[24]
  - These costs are passed on to insurance companies, who in turn raise premiums for businesses and individuals causing the ranks of the uninsured to continue to grow.
  - While insured individual receive discounts off charges (discounts are negotiated by insurance companies), many hospitals bill the uninsured at full charge. This has become a national issue in recent years, leading the federal government this past February to encourage hospitals to give discounts to the uninsured and underinsured.[25]

Supply Often Drives Demand, Resulting in Unnecessary Spending

- The utilization patterns cited above are also substantial drivers of our high rates of health care spending.
  - When comparing total health care spending (hospital and non-hospital) in different geographic areas, 25% of the difference is accounted for by differences in cost per unit, while 75% is accounted for by the number of units consumed.[26]
- Total spending can be lowered by lessening unnecessary utilization.
  - A wide body of research shows that supply of health care services often drives demand and that excess capacity results in unnecessary utilization and higher spending.[27]
  - The supply of hospital beds is the factor that most strongly predicts hospitalization rates for medical conditions,[28] so it is likely that Maine's high rate of hospital utilization is driven at least in part by the fact that we have the most beds per 1,000 citizens in New England.
- Maine's Certificate of Need program can be used as a tool to ensure that supply of health care services does not result in unnecessary capacity, utilization, and spending. However, only 20% of hospital capital expenditures between 1997 and 2002 were related to approved CON projects; the remaining 80% were not subject to CON review.[29]

[24] Maine Health Data Organization, 5/13/04.
[25] Pear, Robert. "Hospitals Can Provide Discounts to Needy Patients, Bush Administration Says." New York Times, Feb. 20, 2004; and www.hhs.gov/news/press/2004pres/20040219.html.
[26] Dr. David Wennberg presentation to CSMH, March 15, 2004
[27] The Maine Medical Assessment Foundation, *Searching for Quality in Medical Care: The MMAF Model.* November 2000.
[28] Wennberg JE, Cooper MM, eds. The Dartmouth Atlas of Health Care in the United States. The Center for Clinical and Evaluative Studies. Dartmouth Medical School. AHA Press, 1996. Chicago, IL.
[29] Kane, presentation to CSMH, June 21, 2004

Quality is Good, but There is Room for Improvement

- A number of studies have shown that Maine has high quality hospitals. However, medical errors constitute a significant problem in all states, and Maine is not immune from this problem.
- A 2003 report issued by the Centers for Medicare and Medicaid Services ranked Maine hospitals third in the nation – just behind New Hampshire and Vermont – in 2000-2001 on 22 quality indicators for care provided to Medicare patients.[30]
- The Institute of Medicine's (IOM) 1999 report, "To Err is Human: Building A Safer Health System" estimated that nationally: as many as 98,000 people die in hospitals each year as a result of medical errors that could have been prevented; medical errors resulted in between $17 and $29 billion in extra medical spending in 1998 (over half of which were direct costs); and 2% of hospital admissions are due to medical errors.
- An average of 3-4 hospitals per year operate with conditional licenses due to failure to meet licensing requirements, which can include a range of quality and safety issues.
- Maine is one of 22 states that have followed an IOM recommendation to implement a mandatory medical error reporting system to hold hospitals accountable for their errors and ensure that hospitals learn from and correct the source of errors. Maine's system became effective February 1, 2004. The Division of Licensing and Certification will issue its first report on errors in February 2005.

Using Standardized and Reliable Data Measures Would Facilitate Comparison of Hospital Costs and Financial Health Over Time

- Using standardized and reliable data measures would assist efforts to make meaningful comparisons of hospital cost-efficiency and financial health between hospitals and over time. Nancy Kane, D.B.A., Professor of Health Policy and Management, Harvard School of Public Health, an independent nationally recognized expert in hospital financial analysis, has suggested:
  - Requiring all hospitals to use the standardized reporting form she developed for the Commission, which would facilitate assessment of individual hospitals' financial health over time and to make comparisons between hospitals.
  - Using separate and specific cost measures for inpatient and outpatient services, which would facilitate assessment of individual hospitals' efficiency over time and making comparisons between hospitals and over time.
- The MHA has raised a number of issues regarding Dr. Kane's suggested measures. A detailed discussion of the issues is provided in the "Need for Standardized Data" section of this document. GOHPF and the MHA are continuing to discuss possible solutions regarding data measurement

[30] Jenks SF, Huff ED, Cuerdon T. "Change in the Quality of Care Delivered to Medicare Beneficiaries 1998-1999 to 2000-2001. JAMA. 2003; 289: 305-312.

Transparency of Costs and Payments Could Bring Multiple Benefits

- It is difficult to assess the extent of "cost shifting" given currently available cost and payment data. "Cost shifting" refers to the contention that public payors (the federal Medicare program and the state-federal MaineCare program) pay less than the cost of providing care, thereby shifting some portion of the cost of care to private payors in the form of higher premiums for the privately insured.[31]
  - Medicare rules, however, state that Medicare hospital payments are predicated upon "reasonable costs."[32]
  - Some Commission members note that public programs pay less than private insurance because public programs play a unique role in making private insurance work by taking care of the highest risk/highest cost citizens, taking them out of the private insurance pool and thereby ***lowering*** private insurance premiums.
- Additional transparency and clarity of cost, payment, and charge data could provide explicit information to help determine the magnitude of cost-shifting.
- Transparency and clarity in the presentation of cost, payment, and charge data – along with information about quality – could also assist employers and employees in understanding the value of health care services they receive and in making decisions about which providers are most efficient.

Other Cost Drivers in Maine's Health Care System

As mentioned earlier, hospital spending constitutes the largest portion of health care spending, accounting for slightly more than one-third of all health spending in the state, so curtailing growth in hospital spending can therefore have a meaningful impact on curtailing growth in total spending.

The Commission was established by the Dirigo Health Reform Act to a look at issues concerning hospital costs, quality and access. The Commission is broadly representative of health care stakeholders with members representing hospitals, physicians, nurses, consumers, business and insurers.

There are other important cost drivers in the health care system – including, but not limited to: the cost of prescription drugs, health insurance overhead, and costs and utilization patterns associated with use of physician services – and that other provisions of the Dirigo Health Reform Act address these cost drivers.

The Dirigo Health Reform Act also:

- subjects insurance companies in the small group market to regulations limiting the amount that can be spent on administration and profit; 78% of every dollar must be spent on medical claims;
- increases the regulatory oversight of health insurance carriers doing business in Maine and requires robust reporting requirements of insurers making it

[31] For instance, see "Maine's Medicare Payment Shortfall: A Special Report Examining How Medicare Payment Shortfalls Are Driving Up The Cost of Health Insurance Coverage," Prepared for the Maine Hospital Association by Baker, Newman & Noyes, LLC, May 2001.
[32] 42 CFR, Sec 412 *et seq*.

easier for consumers to compare administrative costs across different policies;

- requires the Department of Health and Human Services to conduct a comprehensive and comparative study of MaineCare reimbursement rates to providers and to propose strategies for increasing reimbursement levels for legislative review and possible action;
- authorized creation of a State Health Plan to set forth a comprehensive, coordinated approach to the development of health care facilities and resources in the State based on statewide cost, quality and access goals and strategies to ensure access to affordable health care, maintain a rational system of health care and promote the development of the health care workforce;
- strengthens the state's existing CON Program by: establishing more robust criteria as advanced through the State Health Plan; authorizing the Capital Investment Fund, a limit on the dollar amount of capital expenditures and investments in new technologies and services approved by the CON program each year; and expanding CON review to include physician's offices and Ambulatory Surgical Units due to an increase of out-patient services provided at non-hospital institutions;
- requires providers to make available upon request their charges for their most common in-patient and out-patient procedures; this enables consumers, businesses and other payers to compare provider costs; and
- created the Maine Quality Forum, which, among other activities, will participate in efforts to educate the public regarding the positive or negative role drugs may play in the treatment of certain conditions (e.g. Save Antibiotic Strength initiative).

The Act exempted hospitals from regulation pending the Commission's recommendation, instead asking hospitals to voluntarily limit cost growth to 3.5% for a one-year period and operating margins to 3%. Physicians, other providers, and insurers were also asked to limit operating margins to 3% during a one-year period.

In addition to the initiatives authorized by the Dirigo Act, the state has pursued a number of other efforts to reign in health care costs and address access and quality issues:

<u>Prescription Drug Costs</u>

- Implementation of Maine Rx Plus, which provides qualifying Maine residents with discounts on prescription medications.
- Although states' ability to control the cost of prescription drugs is complicated and limited, the Administration is investigating strategies to make available lower prescription drug costs; including consultation with Vermont and New Hampshire to consider opportunities for collaborative initiatives around this issue.
- The Administration is closely monitoring programs in other states and some US cities to facilitate the purchase of prescription medications from pharmacies in Canada.
- MaineCare will continue to explore strategies to maximize purchasing power.
- Public purchasers are considering bulk Rx purchasing strategies and are investigating joint cost containment strategies.

- The state has implemented a Preferred Drug List for MaineCare to ensure the most effective and cost-efficient drugs are prescribed. This strategy is evidence based.
- The state has implemented a voluntary mail order option for Maine's Drugs for the Elderly program. This initiative provides convenience and cost savings to the patient, who pays a lower co-payment when using mail order, and saves the state money through agreements that ensure lower fees and price mark-ups on covered drugs.

Efficiency in Administration and Purchase of Care

- The consolidation of the state's two major health departments, the Department of Human Services and the Department of Behavioral and Development Services, into the Department of Health and Human Services will create an efficient, high quality and easily navigable system of state health services.
- Over the past two years, the Administration has focused on identifying cost drivers within the MaineCare program and has implemented strategies to influence those drivers. These include altering the benefit design for many adult MaineCare members, increasing emphasis on medical necessity as criteria for covering care.
- The state has launched an initiative to examine the feasibility and cost-saving potential of a purchasing alliance among hospitals and other providers, to include the Maine Hospital Association.

The Need for Standardized Data

Throughout the Commission's deliberations, the MHA has raised questions about data. For example, the Dirigo statute contains voluntary limits on consolidated operating margins (3%) and on cost increases, measured as expenses per case mix adjusted discharge (3.5%). The Governor's Office and the MHA disagree over how hospital compliance with those limits should be measured.

To provide the Commission with an independent analysis of data, the Governor's Office contracted with Nancy Kane, D.B.A., Professor of Health Policy and Management, Harvard School of Public Health, an independent, nationally recognized expert in hospital financial analysis.

What follows is a discussion of issues the MHA has raised regarding Dr. Kane's suggested measures and GOHPF's inclusion of those measures in the State health Plan, as well as a response to the issues the MHA has raised. GOHPF and the MHA are continuing to discuss possible solutions regarding data measurement.

Dr. Kane Proposed Use of Inpatient Cost Per Adjusted Discharge (CPAD)

Dr. Kane presented this measure at her first presentation to the Commission as a measure both for comparison to other states and as a measure of compliance with the Dirigo statute's voluntary limit on cost-per-discharge increases. The Governor's Office used the measure in the State Health Plan.

This measure is widely accepted as an appropriate measure to compare inpatient costs, and the data from a reliable source: Ingenix, a health care information, research, and consulting company that maintains one of the largest hospital databases in the country, using data submitted by hospitals. The data are published annually in Ingenix's Almanac of Hospital Financial & Operating Indicators, a resource containing a range of standardized measures to help hospitals nationwide assess their performance relative to other hospitals.

The measure reports the cost of the average inpatient discharge ***after*** controlling for the effects of differences between states in (1) labor costs and (2) patient casemix (i.e., differences in what patients are being treated for, due to factors such as age, co-occurring illnesses, or complications), since those two factors have significant impact on the cost of hospital services. This measure showed that Maine's costs were higher than other states even ***after*** differences in total cost due to labor costs and patient casemix had been taken into consideration.

MHA Response to the Inpatient CPAD Measure

While acknowledging that Dr. Kane's proposed measure is an appropriate measure of ***inpatient*** costs, the MHA pointed out that inpatient services account for only one-half of hospital revenue, and that using a measure of inpatient costs without a measure for outpatient costs presents an incomplete picture. The MHA indicated its preference to use a single measure – "Expense Per Adjusted Inpatient and Outpatient Discharge" -- that combines inpatient and outpatient costs as the basis for comparison to other states and as a measure of compliance with the Dirigo statute's voluntary limit on cost increases. The MHA stated in its testimony on the first draft of the State Health Plan that

in 2002 Maine's Expense Per Adjusted Inpatient and Outpatient Discharge was $7,641 compared to a national figure of $7,355 and a New England Figure of $8,127.

Governor's Office Response: Introduction of a Separate Outpatient Measure

The Governor's Office concurred with the MHA regarding the importance for measures of outpatient costs, but believed it was more appropriate to use two separate measures for inpatient and outpatient, rather than to combine the two into a single measure.

The first draft of the State Health Plan did not include an outpatient measure because, while there is a range of standardized inpatient data available to facilitate inter- and intra-state comparisons of inpatient costs, the same is not true for outpatient data.

There are a number of reasons for the lack of standardized outpatient data. The foremost reason is that, whereas a discharge represents a discreet unit of inpatient service -- the costs of which can be compared once adjustments for case-mix have been made -- there is less agreement about how to measure units of outpatient service (as there is no such things as an outpatient discharge, and one outpatient visit may generate separate claims for several different services and different medical problems).

The MHA proposes to address this issue by combining inpatient and outpatient services into a single measure of hospital cost-efficiency. Specifically, the MHA proposes measuring "Expense Per Adjusted Inpatient and Outpatient Discharge," where total hospital expenses are divided by an estimate of total discharges. The number of discharges is calculated by adding (a) case mix adjusted inpatient discharges, and (b) a proxy of outpatient activity, where outpatient "discharge equivalents" are calculated by dividing gross outpatient service revenue by the average gross inpatient service revenue per inpatient discharge. Gross patient service revenue refers to the total amount that hospitals charge across all payers for all services.

There are two main problems with this approach:

- It assumes that the inpatient case mix index is the same as the outpatient case mix index, which does not hold true when rough measures such as relative weights per outpatient unit are compared to the inpatient case mix index for Medicare.

- It is well established that gross charges are not uniformly related to costs, and are not uniformly marked up across inpatient and outpatient services or among hospitals. Thus, using gross outpatient revenue as a proxy for outpatient activity -- as opposed to using something more standardized like a discharge or visit -- could result in two hospitals with identical underlying total costs and patient-load appearing to have different costs per unit depending on how each hospital sets charges for inpatient and outpatient services (see example on top of next page, in which similarities are shown in columns to the left, differences are shown bolded in columns to the right). This undermines the reliability of the measure as a basis for meaningful comparisons between hospitals and over time.

	Total Discharges	Total Inpatient Costs	Total Outpatient Costs	Case mix index	Inpatient Markup (Charge / Cost)	Out-patient Markup (Charge / Cost)	Cost Per Discharge Using MHA Proposed Measure
Hosp. A	1000	$5,000,000	$5,000,000	1	**1.75**	**1.75**	**$5,000**
Hosp. B	1000	$5,000,000	$5,000,000	1	**1.5**	**2**	**$4,285**

It is for these reasons that the Governor's Office sought input regarding what might be used as a ***separate*** outpatient measure to include in the revised State Health Plan. The MHA refrained from making a recommendation regarding a separate measure to assess inpatient and outpatient costs, recommending instead its proposal for a combined approach.

The Governor's Office ultimately decided that, in the absence of outpatient measures as robust as the inpatient measures available, recently developed Medicare outpatient measures (Ambulatory Payment Classification [APC] Groups, adjusted by their relative weights) would be the most reliable source as a proxy for outpatient cost-efficiency. APC groups have been used by Medicare since August 2000 as a basis for outpatient hospital reimbursement, following twenty years of research and deliberation. Advantages of this approach are:

- Reliability of source: GOHPF purchased an analysis of Medicare outpatient data from a credible and trusted hospital source (Cleverley and Associates, a firm that consults with hospitals nationally on improving hospital financial performance; Cleverley uses APC Groups to calculate a "hospital's average Medicare cost per APC" for comparison purposes); and

- As with the inpatient data presented above, the costs reported are after controlling for the effects of differences between states in (a) labor costs and (b) relative cost differences among APCs (called "relative weights"), thus allowing for meaningful inter-state, inter-hospital, and time-series comparisons regarding the cost of outpatient service to Medicare patients.

A weakness of this dataset as a proxy is that the cost of providing outpatient care to ***all*** patients may not necessarily be inferred from these data since the non-Medicare population is younger and requires different treatment from the Medicare population. Dr. Kane has suggested that the MHDO could produce an all-payor cost per outpatient – thus mitigating this issue – by using software designed to analyze hospital outpatient cost efficiency according to the APC system.

Measures from the Blue Ribbon Commission's Report

In its testimony on the State Health Plan, the MHA noted its preference to use two measures from the Blue Ribbon Commission's Report[33] as a basis for comparison to other states.

[33] The Cost of Health Care in Maine: An analysis of health care costs, factors that contribute to rising costs, and some potential approaches to stabilize costs. Report of the Year 2000 Blue Ribbon Commission on Health Care to Governor Angus S. King, Jr." November, 2000

1. *Hospital Expenditures as a Percent of Personal Health Expenditures In Maine and Nationwide.* The MHA mentions that the Blue Ribbon Commission report (November 2000) presents data showing that in 1999 Maine was estimated to have spent less on hospital care as a percent of personal health expenditures than the national average (34.6% vs. 37.3%). There are two issues with these data:

   - While the Blue Ribbon Commission used the best data available at the time of publication, different data sources were used to compute each measure, which lessens the comparability of the Maine and national values. Namely, the Blue Ribbon Commission used HCFA (now CMS) data for the national number, but used a different methodology for the Maine estimate, since HCFA state estimates for a comparable time period were not available when the report was issued. More recent CMS state and national estimates have since been made available, allowing for a better comparison. These estimates show hospital care as a percent of personal health expenditures in Maine (37.3%) as nearly identical to the national rate (37.4%).[34]

   - Using the percentage of total personal health care spending comprised by hospital spending as a measure fails to address the central question of whether the total costs of providing care – hospital care and other care – are too high. Between 1991 and 1998 (the last year for which 50-state estimates are available), Maine's per capita health care spending increased faster than all other states in the nation, at an average rate of 7.3%. Since 1998, Maine's health care spending has increased by 45%, while income has increased by only 27%.

2. *Hospital Spending Per Capita In Maine and Several Benchmark States*. MHA mentions that the Blue Ribbon Commission report "references the broadest national index of hospital spending which is total hospital spending per capita, and that the report shows Maine only slightly above the national average ($1,159 vs. $1,143)."

   As before, more recent CMS data show a wider gap, with Maine at $1,501 per capita and the US at $1,405 per capita.[35] Maine ranked 15th highest in the country on this measure and was 13% higher than Vermont ($1,328) and 22% higher than New Hampshire ($1,234).

   More importantly, however, MHA is correct when it refers to this measure as "the broadest" index. By not taking into account factors that influence healthcare spending – such as patient casemix and the cost of inputs – the measure is *too* broad to provide meaningful comparisons.

   A more meaningful measure would allow comparison of costs associated with each unit of service delivered by hospitals – as opposed to dividing hospital spending amongst the entire population – after considering the effect of (a) patient casemix (i.e., differences in what patients are being treated for, due to factors such as age, co-occurring illnesses, or complications).on intensity of resource use and thus on total spending, and (b) the cost of hospital inputs (with wages being the most influential) on total spending.

---

[34] Percentages are calculated from data at www.cms.hhs.gov/statistics/nhe/state-estimates-residence/phc-1998.asp and are then applied to the 1998 per capita estimates at www.cms.hhs.gov/statistics/nhe/state-estimates-residence/us-per-capita10.asp

[35] www.cms.hhs.gov/statistics/nhe/state-estimates-residence/us-per-capita20.asp. Last Modified on Friday, September 17, 2004.

As noted above, the measures used in the State Health Plan for inpatient and outpatient services address these problems by reflecting hospital spending *per discharge* (inpatient) and *per APC* (outpatient), *after* controlling for the effects of differences between states in (1) labor costs and (2) patient casemix.

Those measures clearly show that the per-unit costs of Maine's hospitals are higher then those of our benchmarks.

Measures of Operating Margins and Financial Health

The process of assessing the financial health of Maine's hospitals over time is complicated by several factors.

1. Many of Maine's hospitals belong to larger hospital systems and have a wide range of related entities. For example, MaineGeneral Health System has ten entities, including the hospital. The MaineHealth system appears to have over forty different entities.
2. While all of Maine's hospitals are non-profit organizations, as noted in the findings section, hospitals transfer millions of dollars each year to subsidiaries, system affiliates, and physician practices. Some of these related entities are for-profit organizations, whose financial statements are not publicly available.
3. The method of presenting financial data can vary from one hospital to the next and, sometimes, from one year to the next for the same hospital.

As mentioned earlier, the Governor's Office contracted with Nancy Kane of the Harvard School of Public Health to assist the Commission in its work. Two major components of Dr. Kane's work were to (1) conduct an analysis of ten years of audited financial statements from individual hospitals entities using a methodology she has employed for other states to standardize financial data between hospitals and between years to allow apples to apples comparison, and (2) propose a standardization template that would facilitate similar analyses in the future.

Dr. Kane developed this standardization template over the course of her work helping a number of states[36] to develop their own standardization templates. The template is specifically crafted in such a way as to allow apples to apples analysis and comparison between hospitals and over time. For instance, the template's definitions and the level of detail specified in the template:

- provide a standardized method to calculate operating and total margins. facilitate identification of sources of financial stress. and track the sources and uses of cash over time;
- allow a more detailed analysis of the impact of affiliates on hospital finances; and
- permit calculation of price markups and overall discounts. the level and percentage of gross revenue provided as free care. and the value of hospitals' tax exemption.

The MHA has indicated that it would like to assess hospital compliance with the Dirigo statute's voluntary 3% limit on consolidated operating margins by dividing each hospital's

[36] New Hampshire, New Jersey, Massachusetts.

operating revenue by operating expenses ***without*** any adjustments to standardize between hospitals and between years.

Conclusion

The complex nature of hospital financing and cost measurement complicates efforts to clearly understand the finances and costs of Maine's hospitals. The MHA raised legitimate and important points to the Governor's Office. As a result, outpatient costs were included in the State Health Plan and in the Capital Investment Fund rule,[37] the Blue Ribbon Commission findings were reviewed, and these issues were discussed in this report. GOHPF and the MHA are continuing to discuss possible solutions to data measurement.

[37] The Dirigo Statute requires the Governor's Office to establish an annual limit, called the Capital Investment Fund, on the dollar amount of third year costs of capital expenditures and new technology investments approved under the Certificate of Need program. The Governor's office issued an Emergency Rule July 26, 2004 establishing the process to determine the Capital Investment Fund amount